

LISTING OF CLAIMS:

1. (Currently Amended) A method of performing an instant copy of data, comprising:

receiving a write operation command to write data to a data location in one of an initial physical storage area and an additional physical storage area;

performing an instant copy operation to copy data from on the data location; and

writing new data to the data location in accordance with the write operation, wherein the instant copy operation includes generating a pointer to one of the new data and original data in the data location; and

in response to writing new data to the data location, updating the pointer to one of the original data or new data in the data location.

2. (Currently Amended) The method of claim 1, wherein the data location is in the initial physical storage area, and wherein the instant copy operation includes copying a portion of original data from the data location in the initial physical storage area to a second data location in the additional physical storage area in response to receiving the write operation command.

3. (Original) The method of claim 2, wherein the pointer points to the portion of original data copied to the additional physical storage area.

4. (Original) The method of claim 1, wherein the data location is in the additional physical storage area.

5. (Original) The method of claim 4, wherein the instant copy operation includes not copying a portion of original data from the initial physical storage area to the additional physical storage area.

6. (Original) The method of claim 4, wherein the pointer points to new data written to the data location in the additional physical storage area.

7. (Original) The method of claim 1, wherein the initial physical storage area is a variable dynamically changeable mapping scheme storage area.
8. (Original) The method of claim 2, wherein the portion of original data has a size that is different with respect to other portions of data in the initial physical storage area.
9. (Currently Amended) The method of claim 1, wherein the instant copy operation includes generating the pointer is generated in a pointer table of meta-data associated with the additional physical storage area.
10. (Currently Amended) The method of claim 8, wherein the instant copy operation includes further comprising storing the pointer and an associated size of the portion of original data in a meta-data data structure.
11. (Currently Amended) The method of claim 1, wherein the instant copy operation includes storing the pointer is stored in a pointer table of meta-data having a plurality of pointers, and wherein the plurality of pointers include a pair of pointers representing a range of pointers that point to portions of original data that have not been changed by a write operation.
12. (Currently Amended) A computer program product in a computer readable medium for performing an instant copy of data, comprising:
- first instructions for receiving a write operation command to write data to a data location in one of an initial physical storage area and an additional physical storage area;
 - second instructions for performing an instant copy operation to copy data from ~~on~~ the data location; and
 - third instructions for writing new data to the data location in accordance with the write operation, wherein the instant copy operation includes generating a pointer to one of the new data and original data in the data location; and

fourth instructions for updating the pointer to one of the original data or new data in the data location in response to writing new data to the data location.

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13. (Currently Amended) The computer program product of claim 12, wherein the data location is in the initial physical storage area, and wherein the second instructions for performing an instant copy operation include instructions for copying a portion of original data from the data location in the initial physical storage area to a second data location in the additional physical storage area in response to receiving the write operation command.

14. (Original) The computer program product of claim 13, wherein the pointer points to the portion of original data copied to the additional physical storage area.

15. (Original) The computer program product of claim 12, wherein the data location is in the additional physical storage area.

16. (Original) The computer program product of claim 15, wherein the second instructions for performing the instant copy operation include instructions for not copying a portion of original data from the initial physical storage area to the additional physical storage area.

17. (Original) The computer program product of claim 15, wherein the pointer points to new data written to the data location in the additional physical storage area.

18. (Original) The computer program product of claim 12, wherein the initial physical storage area is a variable dynamically changeable mapping scheme storage area.

19. (Original) The computer program product of claim 13, wherein the portion of original data has a size that is different with respect to other portions of data in the initial physical storage area.

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20. (Original) The computer program product of claim 12, wherein the second instructions for performing the instant copy operation include instructions for generating the pointer in a pointer table of meta-data associated with the additional physical storage area.

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21. (Original) The computer program product of claim 19, wherein the second instructions for performing the instant copy operation include instructions for storing the pointer and an associated size of the portion of original data in a meta-data data structure.

22. (Original) The computer program product of claim 12, wherein the second instructions for performing the instant copy operation include instructions for storing the pointer in a pointer table of meta-data having a plurality of pointers, and wherein the plurality of pointers include a pair of pointers representing a range of pointers that point to portions of original data that have not been changed by a write operation.

23. (Cancelled)
